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EXPERIMENT STATION FILE

## NECROBACILLOSIS IN PIGS.

With the extensive diminution of hog cholera, the attention of farmers in various sections is attracted to more or less serious ailments of swine which, in seasons of cholera epizootic, go unnoticed or possibly are diagnosed as cholera itself. The one ailment very prevalent in late spring and in summer, especially in pigs, is necrobacillosis. While this disease assumes various forms, the ones commonly noted in herds are necrotic rhinitis, a condition commonly known as "sniffles," and necrotic enteritis. The latter is, perhaps, the most fatal of the many forms, causing considerable losses in young animals and is often mistaken for cholera.

### NECROTIC RHINITIS.

In the first form mentioned, necrotic rhinitis, the disease assumes a definite type. These lesions are sharply defined by lumps or swellings occurring on some part of the head or face, usually on the snout. If cut open these swellings will be found to contain a cheeselike pus or substance having a disagreeable odor. The lesions often extend to the bones of the face, destroying them and causing the animal to assume a "dish-faced" appearance. The pigs so affected eat but little as a rule and sneeze repeatedly, often expelling a bloody material.

In this form of necrobacillosis, treatment, to be effective, has to be applied in the early stage. When the ailment is noticed before the swelling is large an incision should be made, removing all the pus possible and applying in the opening made, with a syringe, either of the following remedies: Glycerin 15 parts and carbolic acid 1 part, or nitric acid 1 part and water 6 parts, or a 50 per cent solution of iodine. After swelling has become extensive or sloughing of tissues has set in, treatment is of little value and destruction of the animal is recommended.

### NECROTIC ENTERITIS.

In the second form mentioned, necrotic enteritis, the animals affected develop symptoms somewhat akin to hog cholera. Often there is a lack of appetite, and while diarrhea is not constant, it is frequently noticed in the early development of this form. The pigs become unthrifty, emaciated, and weak. However, the absence of red spots on the bellies and the normal or at times subnormal temperature of the animals differentiate the ailment from cholera. The lesions of the disease will be found most commonly in the mucous membrane or inner lining of the large intestines. In advanced stages the mucous membrane of the small intestines is also involved. Small, white, circumscribed necrotic areas may be seen through the serous membrane or outer covering of large intestines. On splitting the intestine open the mucous membrane will be found thickened, with white necrotic (dead) patches ready to slough. These patches



contain a mealy or cheesy substance, and in advanced cases the whole membrane can be easily scraped away. Under this condition food can not be absorbed and the animal dies from lack of nutrition.

In this form, as in the first, remedy must be used before the disease has progressed. Feed and so-called stock food and tonics that may contain irritating ingredients should be avoided, green pastures being preferable if available. A physic of some kind of oil, such as linseed or castor oil, to clean out the bowels, is recommended. Intestinal antiseptics are in order. The following has been used and found beneficial: Copper sulphate 1 part, hyposulphite of soda 4 parts, charcoal 2 parts, and common salt 6 parts. Give one heaping teaspoonful of this mixture to every 100 pounds of live weight, in slop or milk, night and morning for about a week. Other antiseptics such as sulpho-carbolates, iron sulphate, etc., can be used to advantage.

#### CAUSE OF NECROBACILLOSIS.

The origin of all forms of necrobacillosis is the *Bacillus necrophorus*. This organism or germ inhabits the digestive tube of swine, and being expelled in the fecal discharges, it develops and flourishes in damp, insanitary quarters. Finally it finds its way into abrasions on lips, face, and mucous membranes of nasal cavities, develops into rhinitis, and later into necrosis or death of large areas about the head and face of the animals. The same organism passing into the intestinal tract sets up there the same process of inflammation, degeneration, and necrosis or death of tissue, resulting in necrotic enteritis.

#### PREVENTION.

In this disease, as in all other diseases of animals, the sane, simple, and effective method to adopt is the one of prevention. While necrobacillosis is not rapidly infectious, still the whole herd is in danger, in that the pigs have all the same supply of germs to feed from. Just as in all diseases, the germs of this disease must be destroyed in order to prevent the ailment; therefore the keynote of prevention in this also is proper sanitation of premises. Frequent and thorough cleaning out of pens, troughs, feeding floors, sheds, and hog lots is an important factor of preventive measures. In addition to thorough cleaning at frequent intervals a liberal quantity of lime should be applied in pens, houses, and adjoining lots. Proper care in feeding will also eliminate a lot of this trouble. Pigs, shoats, and other hogs should not be allowed to feed from the ground. Suitable feeding floors, preferably of concrete, and troughs of some nonabsorbent material that can be cleaned out, washed, and disinfected frequently, are recommended. These equipments, while meaning a little added expense, nevertheless will pay for themselves in a short time, from the saving of feed and the protection of the animals' health. "An ounce of prevention is worth a pound of cure."